

REMARKS

With the addition of claim 28, claims 1 and 14-28 are pending in the above-referenced application and are submitted for the Examiner's reconsideration.

Claims 1, 14-15, 19-21, 24, and 26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,240,363 to Theimer et al. ("Theimer"). In response, claims 1, 24, and 26 have been amended. Support for the amendments may be found at least at page 5, lines 5-16, of the specification. No new matter has been added. Applicant submits that Theimer does not anticipate or suggest the invention as presented in the claims for at least the following reasons.

Claims 1, 24, and 26 are directed to a method or device for determining and outputting of driving instructions in which a sequence of travel instructions is determined by the central station from the travel route and transmitted to an arithmetic unit, which outputs the travel instructions according to the sequence. Consequently, a determination of the sequence of travel instructions in the arithmetic unit may be dispensed with as well as a need for a locally resident street map. (Specification, page 1, line 24, through page 6, line 5).

In contrast to claims 1, 24, and 26, in Theimer, a route in the form of nodes which represent individual positions on a map, in particular, road junctions, is transmitted to the vehicle and stored therein. (See Theimer, col. 5, lines 45-61). Map or road map information relevant to the current route is likewise stored so that information for a direction of travel for a respective individual road junction may be indicated as navigation instructions. (See Theimer, col. 2, lines 9-18). If a driver of the vehicle leaves the route owing to a traffic jam or for other reasons, then he is guided back to the route by having indicated to him the direction in which he will return to the route. (See Theimer, col. 2, lines 18-22).

As discussed in Theimer, the route data that is transmitted to the vehicle is not the same as the direction instructions assigned to the route data. In particular, the route data includes the starting point, the destination point, and the nodes representing positions on the route, whereas the direction instructions specify, for example, an associated instruction to "turn right" or "continue straight on". (See Theimer, col. 5, lines 54-60, and col. 6, lines 4-12). Although plain in the association between route data and direction instructions, Theimer fails to disclose if the direction instructions are assigned before or after the route data is transmitted. Moreover, any discussion pertaining to the assignment of direction instructions appears in the passive tense so that it is unclear when and by whom the directions instructions are assigned.

Although not explicit in Theimer, it can be inferred that the direction instructions are assigned after the route data is transmitted to the vehicle since the discussion regarding the assignment of direction instructions appears subsequent to the discussion regarding the transmission of the route data. (See for example Theimer, col. 5, line 61, stating “[t]he route data are transmitted to the navigation device 10 ...” which appears just prior to Theimer, col. 6, lines 4-5, stating “[a] direction instruction in this case is assigned to each node z_i ...”). Hence, since it can be inferred that the direction instructions are assigned after the route data is transmitted, it can therefore also be inferred that direction instructions are determined in the vehicle and not in a central station.

Such an inference that the direction instructions are determined in the vehicle is further supported by language found in Theimer describing calculations of an absolute direction and a relative direction to a node. In particular, Theimer states:

Once the route has been stored in the navigation device 10, the current vehicle position is first of all determined ... If [the current vehicle position] is not on the route, then the direction of travel Fr of the vehicle is now determined ... A node z_j on the route, to which the vehicle should be guided, is then selected in step S40, taking account of the shortest overall distance. The distance to the selected node z_j can also be calculated ...

After selecting the appropriate node z_j , the absolute direction from the current vehicle position $z(t)$ to the node z_j , that is to say in this case z_1 , is calculated next in step S50, in order then to calculate, in step S60, the relative direction to the node to be driven to, taking into account of the direction of travel Fr .

Corresponding to step S70, the relative direction is then indicated or announced ...

(Theimer, col. 6, lines 13-32). Hence, Theimer discloses a determination of direction instructions that occurs after the route has been transmitted to the vehicle. Therefore, not only is there no teaching or suggestion in Theimer of determining a sequence of travel instructions in a central station as recited in claims 1, 24, and 26, but Theimer expressly teaches away from such a determination in the central station by disclosing a determination of absolute and relative direction instructions in the vehicle. Therefore, for at least this reason and for the reasons stated above, Theimer does not anticipate claims 1, 24, and 26. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1, 24, and 26 under 35 U.S.C. § 102(e).

As for the remaining dependent claims, Applicant submits that these claims are patentable for at least the same reasons given in support of the patentability of claims 1, 24, or 26.

Applicant has added new claim 28, which includes the limitations removed from amended claim 21. Support for new claim 28 is found at least on page 3, lines 8 to 9, of the Specification. No new matter has been added. Since claim 28 is dependent upon claim 1, Applicant submits that claim 28 is patentable for at least the same reasons given in support of the patentability of claim 1.

Applicant asserts that the present invention is new, non-obvious, and useful. Consideration and allowance of the claims are requested.

Respectfully submitted,

KENYON & KENYON

Dated: 5/2/03

By: 

Richard L. Mayer
Reg. No. 22,490

One Broadway
New York, NY 10004
(212) 425-7200

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Twice Amended) A method for determining and outputting travel instructions for a travel route from a starting point to a destination, comprising:

connecting an arithmetic unit, at least temporarily, with a central station remotely located with respect to the arithmetic unit;

transmitting the starting point and the destination to the central station;

determining the travel route by the central station;

determining a sequence of the travel instructions by the central station from the travel route;

transmitting the sequence of the travel instructions from the central station to the arithmetic unit;

storing the sequence of the travel instructions in the arithmetic unit, and

outputting the travel instructions by the arithmetic unit, one after another, in accordance with the sequence of the travel instructions.

21. (Amended) The method according to claim 1, further comprising:

making a provision in the travel instructions for travel instructions for [at least one of] a driver of a vehicle [and a use of public transportation].

24. (Amended) An arithmetic unit for outputting travel instructions for a travel route from a starting point to a destination, comprising:

a connecting arrangement for connecting, at least temporarily, with a central station remotely located with respect to the arithmetic unit and for transmitting the starting point and the destination to the central station;

a memory arrangement for storing a sequence of the travel instructions transmitted from the central station to the arithmetic unit; and

an outputting arrangement for outputting the travel instructions, one after another, in accordance with the sequence of the travel instructions.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

26. (Amended) A central station for determining travel instructions for a travel route from a starting point to a destination, comprising:

a connection arrangement for connecting, at least temporarily, with an arithmetic unit and for receiving the starting point and the destination, the central station being remotely located with respect to the arithmetic unit;

a determination arrangement for determining a travel route and the travel instructions;
and

a transmission arrangement for transmitting a sequence of the travel instructions from the central station to the arithmetic unit.